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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,085	08/01/2003	Rajasingh Israel	LDHQ10695-3 (GECZ 2 00083	3209
7590 Timothy E. Nauman FAY, SHARPE, FAGAN, MINNICH & McKEE, LLP 1100 Superior Avenue Cleveland, OH 44114			EXAMINER HINES, ANNE M	
			ART UNIT 2879	PAPER NUMBER
			MAIL DATE 11/02/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/633,085	<b>Applicant(s)</b> ISRAEL ET AL.	
	<b>Examiner</b> Anne M. Hines	<b>Art Unit</b> 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2007.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/1/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

Claims 15-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on August 8, 2007.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 and 20 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically:

In claim 1, at line 4, the phrase "the silver layer" lacks antecedent basis in the claim. The Examiner understands 'the silver layer' as referring to the "layer of reflective material" at line 3 of claim 1.

In claim 1, at lines 6-7, the phrase "the thickness of the layer" lacks antecedent basis and it is unclear whether the layer refers to the protective layer or the silver layer.

In claim 1, at lines 8-9, the phrase "a color correction temperature of the lamp is no less than 40K below a color correction temperature of the light source" is unclear because 'no less than 40K below' could be interpreted to require either more than 40K less or no more than 40K less. Based on the specification, the Examiner understands

this phrase to mean 'no more than 40K less'. A similarly confusing requirement exists in claims 3 and 20.

In claim 1, at lines 10-11, the phrase "a % reflectance of the reflective interior surface is no less than about 3% below" is unclear because 'no less than about 3% below' could be interpreted to require either more than 3% less or no more than 3% less. Based on the specification, the Examiner understands this phrase to mean no more than 3% less. A similarly confusing requirement exists in claims 6 and 20.

In claim 5, at line 2, the word 'layer' after '94.5%' appears to be a typographical error.

In claim 8, the reflective material of claim 1 comprises silver. It is unclear whether the reflective material of claim 1 is a separate layer from 'the silver layer' of claim 1, or whether claim 8 does not further limit claim 1.

In claim 20, at lines 4-6, the phrase "the protective layer exhibiting an oscillating function when one of color correction temperature and percent reflectance is plotted against optical thickness for a lamp formed from the reflective surface and protective layer" is indefinite because it requires the material of the protective layer to have certain theoretical material properties for thicknesses that have not been selected and are not used for the device formed by the method of claim 20.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-10, 13, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Gielen et al. (US 5177396) (of record).

Regarding claim 1, Gielen discloses a method of forming a lamp comprising providing a reflective interior surface comprising providing a layer of a reflective material that is silver (Fig. 2, 15; Column 4, line 19; Column 3, lines 44-47), and providing a protective layer which protects the silver layer from oxidation and sulfide formation (Fig. 2, 16; Column 4, lines 43-44); and forming the lamp from the interior surface and a light source (Fig. 2, 11 & 12; Column 4, lines 18-22), the thickness of the layer is selected such that a % reflectance of the interior surface is no less than about 3% below that of an equivalent reflective interior surface without the protective layer in a visible spectral range of 400-800nm (Column 3, lines 39-57).

Regarding claim 2, Gielen further discloses wherein a color correction temperature of the lamp is no less than 40K below a color correction temperature of the light source. Note that since the phrase "no less than 40K below" can be interpreted in the two ways previously discussed (either more than or less than 40K below), the Examiner considers the device of Gielen to meet this requirement.

Regarding claim 3, Gielen further discloses wherein a color correction temperature of the lamp is no less than 20K below a color correction temperature of the light source. Note that since the phrase "no less than 20K below" can be interpreted in

the two ways previously discussed (either more than or less than 40K below), the Examiner considers the device of Gielen to meet this requirement.

Regarding claim 5, Gielen further discloses wherein the % reflectance of the reflective interior surface is at least 94.5% in the visible spectral range of 400-800nm (Column 3, lines 39-57).

Regarding claim 6, Gielen further discloses wherein the % reflectance of the reflective interior surface is no less than about 2.5% below that of the layer of a reflective material in the visible spectrum range of 400-800nm (Column 3, lines 39-57).

Regarding claim 7, Gielen further discloses wherein the layer of reflective material has an average % reflectance of at least 90% in the visible range of the spectrum (Column 3, lines 44-47).

Regarding claim 8, Gielen further discloses wherein the reflective material comprises silver (Column 3, lines 44-47).

Regarding claims 9 and 10, Gielen further discloses wherein the protective layer comprises silicon oxide (Column 3, lines 50-54).

Regarding claim 13, Gielen further discloses wherein the method includes a tabulation step and the reflective layer is formed after the tabulation step (Column 4, lines 53-67).

Regarding claim 20, Gielen discloses a method of forming a lamp comprising providing a reflective surface which includes silver (Fig. 2, 15; Column 4, line 19; Column 3, lines 44-47); covering the reflective surface with a protective layer which is light transmissive (Fig. 2, 16; Column 4, lines 43-44); the optical thickness of the

protective layer being selected such that the color correction temperature is no less than about 20K below that corresponding to a protective layer optical thickness of zero; and the reflectance is no less than 3% below that corresponding to an optical thickness of zero in the visible range of the spectrum (Column 3, lines 39-57). Note that since the phrase "no less than about 20K below" can be interpreted in the two ways previously discussed (either more than or less than 20K below), the Examiner considers the device of Gielen to meet this requirement.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gielen et al. (US 5177396) (of record).

Regarding claim 14, Gielen teaches wherein providing the protective layer comprising SiO<sub>2</sub> includes depositing the layer by a vapor deposition method known in the art (Column 5, lines 13-16). It is well known in the art to deposit SiO<sub>2</sub> by chemical vapor deposition. Therefore, it would have been obvious to one of ordinary skill in the art to have the vapor deposition method known in the art of Gielen be chemical vapor deposition since it is well known in the art to deposit SiO<sub>2</sub> through chemical vapor deposition.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne M. Hines whose telephone number is (571) 272-2285. The examiner can normally be reached on Monday through Friday from 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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